

Local Hazard Mitigation Plan ANNEX

SEWER AUTHORITY MID-COASTSIDE

1.0 Introduction

The Sewer Authority Mid-Coastside (SAM) is organized under a Joint Exercise of Powers Agreement and includes the City of Half Moon Bay, Montara Water and Sanitary District, and Granada Sanitary District. The entire SAM's service area is located in the San Mateo County. SAM was formed in 1976 pursuant to the provisions of Title 1, Division 7, Chapter 5 of the California Government Code, to collect and treat sewerage in the California Midcoast region including the lands between Tunitas Creek and Devil's Slide bounded on the eastern side by the ridgeline defining the coastal watersheds and on the western side by the Pacific Ocean. The population served is approximately 25,000. SAM is governed by a six-member Board of Directors who are appointed by their respective agencies. The Board is comprised of two members from each agency. SAM has existed for 30 years for the purpose of protecting and serving the public health of the member agency communities through construction and maintenance of sewer system and wastewater treatment. The SAM regional system includes three main pumping stations, an eight-mile transmission line, the wastewater treatment plant, and an ocean outfall, where final effluent is dispersed to the receiving ocean waters, which are a part of the Monterey Bay National Marine Sanctuary and James V. Fitzgerald Marine Reserve. The boundaries of the SAM service area are shown on Figures 1 and 2.

2.0 The Planning Process

This process of preparing this plan was familiar to the SAM. Information about the key hazards within the SAM service area is summarized in the Local Hazard Mitigation Plan Annex prepared by San Mateo County for the unincorporated areas. Additionally, specific information about hazards from sewage overflows from the SAM facilities is contained in the Wet Weather Flow Management Program Facility Plan and studies on the Intertie Pipeline System. The Wet Weather Flow Management Program Facility Plan was developed initially in 1999 followed by the Intertie Pipeline System Draft Wet Weather Flow Management Plan Peer Review Report in 2000. The Wet Weather Flow Management Program Facility Plan Update was developed in August 2004 followed by another update in October 2004. The most recent update was in January 2005 and the budget presentation in April 2006. SAM's mitigation planning effort has focused on implementing these pre-existing programs and identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Additionally, SAM routinely complies with the requirements of the California

Environmental Quality Act (CEQA) (which, since 1988, have required mitigation for identified natural hazards) for projects for which they are the lead agency.

The hazard analyses conducted by the County of San Mateo were fed into the planning process for the multi-jurisdictional plan. The County participated in various ABAG workshops and meetings, including the general “kick-off” meeting. In addition, the County has provided written and oral comments on the multi-jurisdictional plan. Finally, the County provided information on facilities that are viewed as “critical” to ABAG. SAM in turn received this information about ABAG from the County Annex.

Key SAM staff met on several occasions to identify and prioritize mitigation strategies appropriate for SAM. Staff involved in these meetings SAM Manager, the Facilities Superintendent and the management team. Meetings also took place with SAM employees for their input on multi-jurisdictional topics. At the meetings, the general priorities and appropriate SAM staff were identified. One of the meetings identified preliminary budgets and potential funding sources for strategies designated as “High” priority. SAM provided several opportunities for the public to comment on the DRAFT mitigation strategies selected by SAM at the Board of Directors meetings, including the December 11, 2006, meeting and January 22, 2007 meeting. The resolution adopting the plan and strategies has been adopted by the Board of Directors on January 22, 2007. The mitigation strategies will become an implementation appendix to the Wet Weather Management Program.

3.0 Hazard and Risk Assessment

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought).

SAM relies on the maps shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/> for details about hazard locations within their service area.

SAM also documents actual incidents. SAM has had frequent sewage overflow incidents during the wet seasons. The incidents reached an alarming peak in 2006 when two SSO incidents, only a few weeks apart were reported to the State’s Office of Emergency Services (OES). The first incident was storm induced and caused at least 5,000-gallons of sewage to overflow into the Pacific Ocean (OES Control No. 06-0706); three weeks later, the second incident caused a 2,000-gallon overflow (OES Control No. 06-0106). The first storm, which took place on February 1, 2006, surpassed the capacity of the temporary storage tanks (rented by SAM as a preventative measure) and impacted the water quality of the James V. Fitzgerald Marine Reserve and beaches. Depending on the intensity of the winter storm season and the precautionary

foresight of the SAM, the population served by the system and the beach users (125,000 visitors annually and surfers totaling over 60,000) are in danger of close contact with harmful bacteria.

Information on disasters declared in San Mateo County is available at <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

SAM examined the hazard exposure of its critical facilities including three main pumping stations, an eight-mile transmission line, the wastewater treatment plant, and an ocean outfall, where final effluent is dispersed to the receiving ocean waters. Of these critical facilities owned and operated by SAM:

- Earthquake faulting - 4,506 acres in San Mateo County are susceptible to earthquake faulting. San Gregorio fault traces run through SAM's service area, and thus several pipelines are subject to surface rupture. However, no critical facilities owned by SAM are located astride this fault.
- Earthquake shaking – most of SAM's service area and is in the highest or next to highest category of shaking potential, in large part because the San Gregorio fault runs through SAM's service area and all six of SAM's critical facilities are located in the next to highest category of shaking potential.
- Earthquake-induced landslides - maps are not yet prepared for San Mateo County, however, landslides have been recorded in the Seal Cove area near where the San Gregorio fault meets the Pacific Ocean.
- Earthquake liquefaction – three of SAM facilities are in areas of moderate, high, or very high liquefaction susceptibility – the WWTP and the Princeton Pump Station are located in moderate areas and the Portola Pump Station is located in a very high area.
- Tsunamis – tsunami evacuation planning mapping has been completed for the SAM service area. Portions of the service area in Half Moon Bay are subject to this hazard, as well as two of the six SAM critical facilities – the Princeton Pump Station and the Vallemar Pump Station.
- Flooding – one of SAM's facilities (the Princeton Pump Station) is on the border of the 100-year flood plain.
- Landslides – one facility is in an area of existing landslides.
- Wildfires – due to the mostly urban nature of SAM's service area, no facilities are susceptible to very high or high wildfire threat, but all of the six facilities are in the wild land urban interface threat area (with the Portola Pump Station on the border).
- Drought – all SAM facilities are subject to drought.

Drought, though a potential problem for SAM, is not fully assessed. SAM will work with ABAG and various water supply agencies on this issue.

SAM plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted.

As these impacts are not fully developed, SAM has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that earthquakes (liquefaction, shaking, and faulting), flooding, wildfire, and landslides (including unstable earth) pose a significant risk for potential loss.

4.0 Mitigation Activities and Priorities

SAM reviewed the stated mitigation goals of the original ABAG Multi-Jurisdictional Plan. Table 1 lists these goals and mitigations, as well as specific strategies within the jurisdiction of SAM to implement. In conformance with the original plan, SAM's mitigation priorities were made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, SAM is committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, several of the strategies are accomplished through existing SAM programs, as noted below.

These draft priorities have been submitted to SAM Manager for review. The draft priorities have also been provided to SAM Board of Directors. The public was provided with an opportunity to comment on the DRAFT priorities. The final strategies will become a reference document for SAM's Wet Weather Flow Management Program Facility Plan.

In addition, SAM examined the hazard exposure information to SAM-owned critical facilities supplied by ABAG. SAM has determined that reducing or frequent sewage overflow incidents during the wet seasons would benefit thousands of residents and visitors and multiple properties. The overflow incidents reached an alarming peak in 2006 when two SSO incidents, only a few weeks apart were reported to the State's Office of Emergency Services (OES). The first incident was storm induced and caused at least 5,000-gallons of sewage to overflow into the Pacific Ocean (OES Control No. 06-0706); three weeks later, the second incident caused a 2,000-gallon overflow (OES Control No. 06-0106). The first storm, which took place on February 1, 2006, surpassed the capacity of the temporary storage tanks (rented by SAM as a preventative measure).

To mitigate against the potential disasters caused by these conditions, SAM

identified several high-priority projects. These projects include construction of a 600,000-gallon emergency sewage concrete storage tank, a washdown/drainage system and fill and drain pipelines; construction of a new 14-inch force main; improvements to the Supervisory Control and Data Acquisition (SCADA) system; pump station improvements, and other miscellaneous improvements. These projects are candidates for FEMA Pre-Disaster Mitigation grants based on their impact to protecting public health and safety, and property following a major storm event.

5.0 The Plan Maintenance and Update Process

SAM Manager will ensure that **monitoring** of this Annex will occur. The plan will be monitored on an on-going basis. In addition, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of SAM management team at least one every year in April. At that meeting, the management team will focus on **evaluating** the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

SAM is committed to reviewing and **updating** this plan Annex at least once every five years, as required by the Disaster Mitigation Act of 2000. SAM Manager will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, SAM again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act the as lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County of San Mateo Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The **public** will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, SAM will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.